

REMARKS

Claims 1 through 23 are pending in the application. Claims 1, 10, 18, 21, 22 and 23 are the independent claims. Claims 1, 10, 18, 22 and 23 have been amended. No new matter has been added.

Claims 1, 2, 4, 5, 7, 10, 11, 13, 15, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,872,769 to Caldara et al. Claims 3, 6, 12, 14, and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Caldara et al., U.S. Patent No. 5,872,769. Claims 8, 9, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caldara et al. in view of U.S. Patent No. 6,421,742 to Tillier. Claims 18-20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caldara et al. in view of U.S. Patent No. 5,790,522 to Fichou et al. Applicants respectfully request that the above-identified application be reconsidered in view of the above amendments and following remarks.

The 35 U.S.C. § 102 Rejection

Claims 1, 2, 4, 5, 7, 10, 11, 13, 15, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,872,769 to Caldara et al. Applicants respectfully traverse this rejection.

Claim 1 recites:

“a first node comprising a first plurality of first-in, first-out (FIFO) queues arranged for high priority to low priority data movement operations; and a second node operatively connected to the first node by multiple control and data channels, the second node comprising a second plurality of FIFO queues arranged in correspondence with the first plurality of FIFO queues for high priority to low priority data movement operations via the multiple control and data channels; wherein an I/O transaction is accomplished by one or more control channels and data channels created for moving commands and data separately between the first node and the second node during the data movement operations, in the order from high priority to low priority. ”

Regarding claim 1, the Examiner states:

“Caldara et al. discloses a network comprising:

A first node/host system 20 with a first plurality of queues arranged for high priority to low priority data movement operations (Fig. 1, 6);

A second node/remote system 22 connected to the first node by control and data channels (Fig. 1, 6). The second node comprises a second plurality of second queues arranged correspondence with the first plurality of queues for high to low priority data movement operation via the control and data channels (Fig. 1, 6; col. 5);

Wherein, the control and data channels are separate (Col. 5, lines 2-10).” [sic]
(See Office Action, page 2, paragraph 3.)

Applicants respectfully disagree. Contrary to the Examiner’s assertion, the Caldara et al patent does not have “a second plurality of FIFO queues arranged in correspondence with said first plurality of FIFO queues for high priority to low priority data movement operations,” as recited in claim 1. At best, the Caldara et al patent discloses a plurality of input nodes with each having a plurality of input queues, in which data cells are stored according to a priority associated with each data cell, and connected via a bandwidth arbiter and a data switch to a plurality of output nodes each having a plurality of output queues (see column 4, lines 51 through 64). The bandwidth arbiter receives and arbitrates requests to send the data cells (see FIG. 6) and controls the order

the data cells may be sent through the data switch from 1 of 4 preferred lists per link and 1 of 12 dynamic lists per link to various queues (see FIG. 10). However, the input and output queues in the Caldara et al. patent are not “arranged in correspondence” with each other as recited in claim 1. Instead, each of the input queues can send data to up to three different output queues (see FIG. 6, Queue 3 in Port 0 in TSPP, which can contain ABR, VBR and UBR priority level 4 data cells and corresponds to three different queues (queue 3 in each of VBR Bandwidth Spec., ABR Bandwidth Spec. and UBR). Therefore, the Examiner has failed to establish a *prima facie* case of anticipation of claim 1 and the claims 2, 4, 5 and 7 that depend therefrom.

Regarding claim 10, claim 10 has been amended and now recites, *inter alia*: “said remote system comprising multiple first-in, first-out (FIFO) queues arranged in correspondence with said host system multiple FIFO queues for high to low priority data movement operations”. For at least those reasons given above for claim 1, the Caldara et al. patent fails to disclose the claimed correspondence between the input queues and the output queues. Therefore, the Examiner has failed to establish a *prima facie* case of anticipation of claim 10, and claims 11, 13 and 15 that depend therefrom.

Regarding claim 21, claim 21 has been amended and now recites, *inter alia*: “. . . said first plurality of FIFO queues being arranged to correspond with a second plurality of FIFO queues in said another node . . .” For at least those reasons given above for claim 1, the Caldara et al. patent fails to disclose the claimed correspondence between the input queues and the output queues. Therefore, the Examiner has failed to establish a *prima facie* case of anticipation of claim 21.

Accordingly, withdrawal of the Section 102 rejection of independent claims 1, 10, and 21, and the claims that depend, respectively, therefrom, is respectfully requested.

Applicants believe claims 1, 2, 4, 5, 7, 10, 11, 13, 15, and 21 are allowable and respectfully request issuance of a notice of allowance to that effect.

The 35 U.S.C. § 103 Rejection

Claims 3, 6, 12, 14, and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Caldara et al., U.S. Patent No. 5,872,769. This rejection is respectfully traversed.

Claims 3, 6, 12, 14, and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Caldara et al., U.S. Patent No. 5,872,769. This rejection is respectfully traversed. For at least those reasons given above for claim 1, the Caldara et al. patent fails to teach or suggest: “a second plurality of FIFO queues arranged in correspondence with said first plurality of FIFO queues for high priority to low priority data movement operations”. Therefore, the Examiner has failed to establish a *prima facie* case of obviousness, and withdrawal of the Section 103 rejection of claims 3, 6, 12, 14, and 22 is respectfully requested.

Claims 8, 9, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caldara et al. in view of U.S. Patent No. 6,421,742 to Tillier. This rejection is respectfully traversed. Regarding claims 8, 9, 16, and 17, for at least those reasons given above for claim 1, the Caldara et al. patent fails to teach or suggest: “a second plurality of FIFO queues arranged in correspondence with said first plurality of FIFO queues for high priority to low priority data movement operations”. Therefore, the Examiner has failed to

establish a *prima facie* case of obviousness, and withdrawal of the section 103(a)

rejection of claims 8, 9, 16, and 17 is respectfully requested.

Claims 18 through 20 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caldara et al. in view of U.S. Patent No. 5,790,522 to Fichou et al. This rejection is respectfully traversed.

Claims 18 and 23 recite *inter alia*: “assigning a local priority to each control channel for transferring high priority commands to move across the control channel before low priority commands during said data movement operations”.

Regarding claims 18 and 23, the Examiner states:

“Caldara et al fail to disclose assigning logical priority to control channel for transferring high priority commands before low priority commands; and moving high priority data before move low priority data. Fichou et al. disclose a similar system wherein high priority data is moved before low priority data (Fig. 9; col. 11). It would have been obvious to a person having ordinary skill in the art by the time the invention was made to modify the first and second node in the system taught by Caldara et al so that the system can assign logical priority to control channel for transferring high priority commands before low priority commands; and move high priority data before move low priority data. A skill artisan would have been motivated to so in order to transmit real-time data that is sensitive to delay before transmit non-real time data as taught by Fichou et al.” [sic] (See Office Action, page 6, paragraph 6.)

Applicants respectfully disagree with the Examiner’s assertion that the Fichou et al. patent discloses “a similar system.” The Fichou et al. patent discloses a method and system for “performing traffic congestion control in a data communication network” by monitoring “. . . whether a predefined high priority queue is empty,” and a “backpressure signal” indicating the output of the switch is congested are present. (See column 5, lines 24 through 44 and Abstract.) There is nothing in the Fichou et al. patent that teaches or suggests: “assigning a local priority to each control channel for transferring high priority commands to move across the control channel before low priority commands during said

data movement operations,” as recited in claims 18 and 23. Therefore, the Examiner has failed to establish a *prima facie* case of obviousness and withdrawal of the section 103(a) rejection of claims 18 through 20 and 23 is respectfully requested.

Applicants believe all pending claims to be allowable and, accordingly, issuance of a notice of allowance for claims 1 through 23 is respectfully requested.

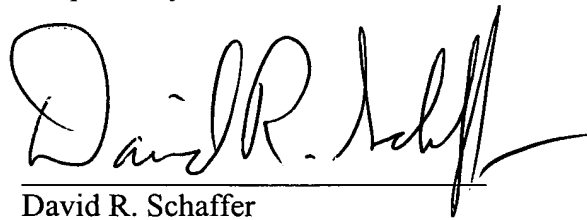
CONCLUSION

In view of the above amendments and remarks, the Applicants respectfully submit that the present case is in condition for allowance and respectfully requests that the Examiner issue a notice of allowance.

The Office is hereby authorized to charge \$110.00 for the One-Month Petition for Extension of Time under 37 CFR 1.136(a) plus any fees determined to be necessary under 37 C.F.R. § 1.16 or § 1.17 or credit any overpayment to Kenyon & Kenyon **Deposit Account No. 11-0600.**

The Examiner is invited to contact the undersigned at (202) 220-4263 to discuss any matter concerning this application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "David R. Schaffer", with a long horizontal flourish extending to the right.

David R. Schaffer
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